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| Lymphatic drainage | Nerve | Vein | Artery | Action  E=elevate  D-depress | Insertion | Origin | Organ or muscle |
| Upper deep cervical lymph nodes mainly jugulodigastric lymph nodes. | Tonsillar branch of glossopharyngeal nerve.  Lesser palatine nerve. | Paratonsillar vein to pharyngeal plexus. | Tonsillar branch of facial A  Twigs from dorsalis lingulae A  Twigs from ascending pharyngeal artery (from ECA).  Twigs from ascending palatineA (fromfacial). |  |  | extends from soft palate to upper border of epiglottis | ***Pharynx***  \****Oropharynx*** |
| extends from the lower border of epiglottis to the upper border of cricoid cartilage | ***\*laryngopharynx*** |
| Upper deep cervical lymph nodes.  Lower deep cervical lymph nodes.  Retropharyngeal lymph nodes.  Para tracheal lymph nodes. | Motor:  All muscles of pharynx are supplied by cranial part of accessory nerve through pharyngeal branch of vagus except Stylopharyngeus m. (glossopharyngeal nerve).  Sensory  Nasopharynx is innervated by a pharyngeal branch of the maxillary nerve [V2] .  Oropharynx is innervated by the glossopharyngeal nerve [IX] via the pharyngeal plexus.  Laryngopharynx is innervated by the vagus nerve [X] via the pharyngeal plexus.  Pharyngeal plexus  Glossopharyngeal nerve (IX).  Pharyngeal plexus. | Pharyngeal plexus of veins into internal jugular vein | 1-Ascending pharyngeal artery.  2-Ascending palatine artery.  3-Facial artery.  4-Lingual artery.  5-Pharyngeal branch of maxillary artery. | During swallowing, contraction of the upper fibres of the superior constrictor will pull the pharyngeal wall forwards. This will help the soft palate to close the nasopharyngeal isthmus (between the nasopharynx and oropharynx)  The successive contractions of the superior, middle and inferior constrictor muscles propel the bolus of food downwards to the oesophagus.  Elevation of the larynx and pharynx during swallowing.  It helps in elevation of the pharynx. | Pharyngeal raphe:  A strong median fibrous raphe that receives insertion of all constrictors on the back of the pharynx.  Its upper end is attached to the pharyngeal tubercle.  into the posterior border of thyroid cartilage  It blends with palatopharyngeus muscle | Superior constrictor; posterior border of medial pterygoid plate.  Pterygoid hamulus.  Pterygomandibular raphe.  Posterior end of mylohyoid line.  Middle constrictor:  Lower part of stylohyoid ligament.  Lesser and greater cornu of hyoid bone.  Inferior constrictor:  Thyroid and cricoid cartilages.  from styloid process of the temporal bone.  cartilaginous part of auditory tube | Muscles of the Pharynx  1-Constrictor muscles  2-Stylopharyngeus muscle  3- Salpingopharyngeus muscle: |
|  | Cranial part of accessory nerve through pharyngeal plexus. |  |  | Depression of the palate &narrowin nasopharyngeal isthmus during deglutition. | The lamina of thyroid cartilage | Hard palate and palatine apponeurosis. | 4- Palatopharyngeus muscle: |
|  | Sympathetic:  Sympathetic trunk.  Parasympathetic: Vagi | Cervical part:  Inferior thyroid veins.  Thoracic part:  Aygos, hemiazygos and accessory hemiazygos veins.  Abdominal part:  Left gastric vein. | Cervical part:  Inferior  thyroid A.  Thoracic part:  Descending thoracic aorta.  Abdominal part:Left gastricA.The supplying arteries are interconnectd by longitudinal anastomotic channels. |  |  |  | *ESOPHAGUS* |
| A-Above the umbilicus into pectoral lymph nodes  B- Below the umbilicus into superficial inguinal lymph nodes | 1-Lower five intercostal and subcostal nerves  2-Illio-hypogastric and illio-inguinal nerves | The anterior abdominal wall is drained by veins corresponding to the arteries | A- Above the umbilicus  1-superior epigastric artery  2-musculo-phrenic artery  3-lower two posterior intercostal and subcostal arteries  Below the umbilicus  1-Inferior epigastric artery  2-Deep circumflex iliac artery  3-Superficial branches of femoral artery | 1-support the viscera and keep them in their position  2-contract to increase the intra-abdominal pressure during urination and defection (mainly the trunsversus abdominis).  3-expiratory action :  -the abdominal muscles contract during expiration and relax during inspiraion .  4-movement of the trunk  a-contraction of rectus abdominis muscle forward flexion.  b-contraction of one side of the oblique muscles lateral flexion .  c.combined action of external oblique with the oppisite internal oblique rotation of the trunk  5- elevation of the testis by the cremastric m . |  |  | Muscles of the anterior abdominal wall and its artery and vein and nerves and L.N |
|  |  |  |  |  |  |  | 1/paramedian muscles |
|  |  |  |  | -flexion of the trunk . | 5th, 6th & 7th costal cartilages-  -The muscle is divided by 3 tendinous intersections as follows:  -These tendentios intersections are present on the anterior surface of the muscle and indicate that the muscle arises from different myotomes | symphysis pupis and pubic crest. | -Rectus abdominis muscle |
|  | subcostal nerve |  |  | it stretches the linea alba | into the lower part of the linea alba | pubic crest and symphysis pubis | - Pyramidalis muscle |
|  |  |  |  |  |  |  | 2/anterolateral flat muscles |
|  |  |  |  |  | -iliac crest ( anterior half of the outer lip)  -anterior superior iliac spine  -pubic tubercle  -pubiccrest  -linea alba | lower 8 ribs (outer surface) | -external abdominal oblique m.\* downwards , forwards & medialy \* |
|  |  |  |  |  | 1- linea alba  2- lower 4 or 5 ribs  3- the lower fibers forms an arched fibers called the conjoint tendon. | 1- iliac crest (ant. 2/3 of its intermediate line)  2- inguinal ligament  ( lateral 2/3 of its inner surface).  3- lumbar fascia | -internal abdominal oblique m.  \* upwards , forwards and medialy\* |
|  |  |  |  |  | a- linea alba  b-the lower fibers form an arched fibers together with the lower fibers of internal oblique muscle (conjoint tendon) | the lateral third of the inner surface of inguinal ligament  -anterior 2/3 of the medial lip of the iliac crest  -the inner surfaces of the cartilages of the lower 8 ribs  -the thoracolumbarl fascia.  Direction of the fibers :  -horizontaly . | -transversus abdominis m. |
| Sympathetic: from celiac plexus around celiac trunk. It causes relaxation of the wall and contraction of pyloric sphincter. It also carries pain sensation.  Parasympathetic: parasympathetic fibers from the right and left vagus nerves. It is secretory to the glands of the stomach, inhibitory to the pyloric sphincter and motor to the wall.  A large branch passes to the celiac and superior mesenteric plexuses and is distributed to the intestine as far as the splenic flexure and to the pancreas. | The gastric lymph vessels drain ultimately into the celiac lymph nodes. | The left and right gastric veins drain directly into the portal vein.  The short gastric veins and the left gastroepiploic vein join the splenic vein  The right gastroepiploic vein joins the superior mesenteric vein. | 1- Arterial supply: From the branches of the celiac trunk.  Left gastric artery arises from the celiac artery.  Right gastric artery arises from the hepatic artery.  Short gastric arteries arise from the splenic artery.  Left gastroepiploic artery arises from the splenic artery.  Right gastroepiploic artery arises from the gastroduodenal branch of the hepatic artery. |  |  |  | Stomach |
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